

IN THE CLAIMS

1. (Currently Amended) An image processing system comprising:

a camera; and

an image processor for processing camera image data obtained from said camera,

said image processor comprising:

supplement information image generation means for imaging supplement information relating to said camera image data and generating supplement information image data;

combining means for combining data obtained in middle of JPEG encoding of said camera image data with data obtained in middle of JPEG encoding of said supplement information image data; and

Huffman encoding means for conducting Huffman encoding on composite data obtained by said combining means,

difference detection means for calculating a difference between pixels of two said camera image data input at different times from said camera, said difference being obtained for each pixel; and

judgment means for judging that when said difference is larger than a predetermined value, a block of given size including pixels from which said difference is obtained corresponds to a moving portion in said camera image data,

wherein said combining means combines data obtained in middle of JPEG encoding of said camera image data and data obtained in middle of JPEG encoding of said supplement information image data so that said supplement information image data is visible in said block indicating said moving portion in said camera image data, when JPEG data for image display obtained by Huffman encoding means is displayed.

2. (Previously Presented) The image processing system according to claim 1, wherein said image processor comprises:

linking means for linking JPEG data for image display obtained by said Huffman encoding means to JPEG data for supplement information image, obtained by conducting JPEG encoding on said supplement information image data.

3. (Previously Presented) The image processing system according to claim 1, wherein said image processor comprises:

display image decoding means for conducting Huffman decoding on JPEG data for image display obtained by said Huffman encoding means; and

removal means for removing data in middle of JPEG encoding of said supplement information image data from JPEG data for image display subjected to Huffman decoding.

4. (Previously Presented) The image processing system according to claim 1, wherein said image processor comprises:

display image decoding means for conducting Huffman decoding on JPEG data for image display obtained by said Huffman encoding means;

supplement information image decoding means for conducting Huffman decoding on JPEG data for supplement information image obtained by conducting JPEG encoding on said supplement information image data; and

removal means for removing JPEG data for supplement information image subjected to Huffman decoding from JPEG data for image display subjected to Huffman decoding.

5. (Previously Presented) The image processing system according to claim 1, wherein said image processor comprises:

difference information generation means for generating difference information between first supplement information image data relating to a first camera image data and second supplement information image data relating to a second camera image data;

difference information JPEG encoding means for conducting JPEG encoding on said difference information;

difference information linking means for linking JPEG data for image display obtained by said Huffman encoding

means to JPEG data for difference information, obtained by said difference information JPEG encoding means.

6. (Previously Presented) The image processing system according to claim 1, wherein said image processor comprises:  
feature value generation means for generating feature value peculiar to JPEG data for image display obtained by said Huffman encoding means; and  
feature value linking means for linking said JPEG data for image display to said feature value data.

7. (Previously Presented) The image processing system according to claim 6, wherein said image processor comprises:  
separation means for separating said JPEG data for image display and said feature value data from linked data obtained by said feature value linking means;  
post-separation feature value generation means for generating post-separation feature value data peculiar to the JPEG data for image display obtained by said separation means; and  
decision means for deciding that the feature value obtained by said separation means does not coincide with said post-separation feature value data.

8. (Previously Presented) The image processing system according to claim 6, wherein said image processor comprises:  
decision means for deciding that linked data obtained by said feature value linking means does not include said feature value data.

9. (Previously Presented) The image processing system according to claim 6, wherein said feature value generation means generates as said feature value data, a check sum of a quantized DCT coefficient block obtained by adding a quantized DCT coefficient block obtained in middle of JPEG encoding of said camera image data and a quantized DCT coefficient block obtained in middle of JPEG encoding of said supplement information image data.

10. (Previously Presented) The image processing system according to claim 6, wherein said feature value generation means generates a hash value of said JPEG data for image display as said feature value data.

11. (Currently Amended) An image processor comprising:  
input means for inputting a camera image picked up by a camera;

supplement information image generation means for imaging supplement information relating to said camera image and generating supplement information image data;

camera image compression means for compressing camera image data of said camera image;

supplement information image compression means for compressing said supplement information image data; and

difference detection means for calculating a difference between pixels of two said camera image data input at different times from said camera, said differences being obtained for each pixel; and

judgment means for judging that when said difference is larger than a predetermined value, a block of given size including pixels from which said difference is obtained corresponds to a moving portion in said camera image data,

combining means for combining data obtained in middle of compression of said camera image data with data obtained in middle of compression of said supplement information image data so that said supplement information image data is visible in said block indicating said moving portion in said camera image data, when data obtained by said combining means is displayed.

12. (Previously Presented) The image processor according to claim 11, wherein said combining means adds a quantized

discrete cosine transform coefficient block obtained by conducting discrete cosine transform and then quantization on said camera image data, and a quantized discrete cosine transform coefficient block obtained by conducting discrete cosine transform and then quantization on said supplement information image data.

13. (Previously Presented) The image processor according to claim 11, comprising:

camera image expander means for conducting Huffman decoding on compressed data for camera image obtained by said camera image compression means,

wherein said supplement information image compression means conducts discrete cosine transform and then quantization on said supplement information image data, and

said combining means adds the compressed data for camera image subjected to Huffman decoding and the supplement information image data subjected to discrete cosine transform and then quantization.

14. (Previously Presented) The image processor according to claim 11, comprising:

supplement information image decoding means for conducting Huffman decoding on compressed data for supplement

information image obtained by said supplement information image compression means,

wherein said camera image compression means conducts discrete cosine transform and then quantization on said camera image data, and

said combining means adds the compressed data for supplement information image subjected to Huffman decoding and camera image data subjected to discrete cosine transform and then quantization.

15. (Previously Presented) The image processor according to claim 11, comprising:

camera image expander means for conducting Huffman decoding on compressed data for camera image obtained by said camera image compression means; and

supplement information image decoding means for conducting Huffman decoding on compressed data for supplement information image obtained by said supplement information image compression means, and

said combining means adds the compressed data for camera image subjected to Huffman decoding and the compressed data for supplement information image subjected to Huffman decoding.



16. (Currently Amended) The image processor comprising:

input means for inputting a camera image picked up by a camera;

supplement information image generation means for imaging supplement information relating to said camera image and generating supplement information image data;

compression means for conducting irreversible compression and then reversible compression on image data; and

difference detection means for calculating a difference between pixels of two said camera image data input at different times from said camera, said difference being obtained for each pixel; and

judgment means for judging that when said difference is larger than a predetermined value, a block of given size including pixels from which said difference is obtained corresponds to a moving portion in said camera image data,

combining means for combining camera image data of said camera image subjected to the irreversible compression in said compression means with said supplement information image data subjected to the irreversible compression in said compression means so that said supplement information image data is visible in said block indicating said moving portion in said camera image data, when data obtained by said combining means is displayed, composite data obtained by said

combining means being subjected to reversible compression in said compression means.

17. (Previously Presented) The image processor according to claim 16, wherein said combining means combines said camera image data after being subjected to discrete cosine transform and before being subjected to Huffman encoding with said supplement information image data after being subjected to discrete cosine transform and before being subjected to Huffman encoding.

18. (Previously Presented) The image processor according to claim 16, wherein said combining means combines said camera image data after being quantized and before being subjected to Huffman encoding with said supplement information image data after being quantized and before being subjected to Huffman encoding.

19-24. (Canceled).

25. (Currently Amended) An image processor comprising:  
a first encoding means for executing DCT conversion on a first image data, quantizing said first image data subjected to said DCT conversion and executing Huffman encoding on said first image data quantized;

a second encoding means for executing DCT conversion on a second image data, quantizing said second image data subjected to said DCT conversion and executing Huffman encoding on said second image data quantized,

difference detection means for calculating a difference between pixels of two or more of said first image data input at different times, said difference being obtained for each pixel;

judgment means for judging that when said difference is larger than a predetermined value, a block of given size including pixels from which said difference is obtained corresponds to a moving portion in said first image data;

linking means for linking said first image data encoded by said first encoding means to said second image data encoded by said second encoding means;

transmission means for transmitting linked data obtained from said linking means to a storage apparatus; and

decoding means for executing Huffman decoding on said first image data of said linked data in said storage apparatus, executing inverse quantization on said first image data subjected to said Huffman decoding and executing inverse DCT conversion on said first image data subjected to said inverse quantization,

wherein said first encoding means combines said first image data subjected to said DCT conversion quantized by

said first encoding means and said second image data subjected to said DCT conversion quantized by said second encoding means and executes Huffman encoding on said first image data combined so that said second image data is visible in a block indicating said moving portion in said first image data, when data obtained by said first encoding means are displayed, and

said decoding means executes Huffman decoding on said second image data of said linked data in said storage apparatus, subtracts said second image data subjected to said Huffman decoding from said first image data subjected to said Huffman decoding, executes inverse quantization on said first image data subjected to the subtraction and executes inverse DCT conversion on said first image data subjected to said inverse quantization.

26. (Previously Presented) The image processor according to claim 25, comprising judging means for judging whether or not a display mode is a mode which displays said first image data comprising said second image data,

wherein when said display mode is a mode which displays said first image data comprising said second image data, said decoding means executes inverse quantization on said first image data subjected to said Huffman decoding and executes inverse DCT conversion on said first image data subjected to said inverse quantization without subtracting

said second image data subjected to said Huffman decoding from said first image data subjected to said Huffman decoding, and when said display mode is a mode which displays said first image data without comprising said second image data, said decoding means subtracts said second image data subjected to said Huffman decoding from said first image data subjected to said Huffman decoding, executes inverse quantization on said first image data subjected to the subtraction and executes inverse DCT conversion on said first image data subjected to said inverse quantization.

27. (Previously Presented) The image processor according to claim 26, wherein said first image data comprises image data picked up by a camera, and said second image data comprises character image data relating to said first image data.